Claims

1. An apparatus for analysing the condition of a machine, comprising:

at least one input for receiving measurement data from a sensor for surveying a measuring point of the machine;

data processing means for processing condition data dependent on said measurement data; said data processing means comprising means for performing a plurality of condition monitoring functions (F1, F2,Fn); and

a logger for registering use of at least two of said condition monitoring functions (F1, F2,Fn);

wherein

said logger is adapted to register use of a first condition monitoring function at a first rate; and

said logger is adapted to register use a second condition monitoring function at a second rate.

2. The apparatus according to claim 1, wherein

said second rate is such that use registered at said second rate causes a higher cost per unit of usage than use registered at said first rate.

3. The apparatus according to claim 1, wherein

said second rate is such that use registered at said second rate causes a lower cost per unit of usage than use registered at said first rate.

4. The apparatus according to any of the preceding claims, wherein:

said registered use is a parameter indicative of a number of executions of at least one of said condition monitoring functions (F1, F2,Fn).

5. The apparatus according to any of claims 1-3, wherein:

said registered use is a parameter indicative of an extent of time.

6. The apparatus according to any of claims 1 -5, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes two or three or more functions selected from the group consisting of: vibration analysis, temperature analysis, shock pulse measuring, spectrum analysis of shock pulse measurement data, Fast Fourier Transformation of vibration measurement data, graphical presentation of condition data on a user interface, storage of condition data in a writeable information carrier on said machine, storage of condition data in a writeable information carrier in said apparatus, tachometering, imbalance detection, misalignment detection.

7. The apparatus according to any of claims 1-6, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for imbalance detection.

8. The apparatus according to any of claims 1-7, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for balancing.

9. The apparatus according to any of claims 1 - 5, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for misalignment detection.

10. The apparatus according to any of claims 1-9, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for alignment.

11. The apparatus according to any of claims 1-10, further comprising

means for causing a user interface to indicate when use is registered at said first rate.

12. The apparatus according to any of claims 1-11, further comprising

means for causing a user interface to indicate when use is registered at said second rate.

13. An apparatus for analysing the condition of a machine having a rotating shaft, comprising:

at least one input for receiving measurement data from a sensor for surveying a measuring point of the machine; said measurement data being dependent on rotation of said shaft;

data processing means for processing condition data dependent on said measurement data; said data processing means comprising means for performing a plurality of condition monitoring functions (F1, F2,Fn);

a logger for registering use of at least one of said condition monitoring functions (F1, F2,Fn); and

means for reading a current value of said registered use;

means for comparing said current value with a reference value; wherein

said logger is adapted to register use at a first rate when said current value is above the reference value; and

said logger is adapted to register use at a second rate when said current value is below the reference value.

14. The apparatus according to claim 13, wherein

said second rate is such that use registered at said second rate causes a higher cost per unit of usage than use registered at said first rate.

15. The apparatus according to claim 13, wherein

said second rate is such that use registered at said second rate causes a lower cost per unit of usage than use registered at said first rate.

16. The apparatus according to any of the preceding claims, wherein:

said registered use is a parameter indicative of a number of executions of at least one of said condition monitoring functions (F1, F2,Fn).

17. The apparatus according to any of claims 13-16, wherein:

said registered use is a parameter indicative of an extent of time.

18. The apparatus according to any of claims 13 -17, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes two or three or more functions selected from the group consisting of: vibration analysis, temperature analysis, shock pulse measuring, spectrum analysis of shock pulse measurement data, Fast Fourier Transformation of vibration measurement data, graphical presentation of condition data on a user interface, storage of condition data in a writeable information carrier on said machine, storage of condition data in a writeable information carrier in said apparatus, tachometering, imbalance detection, misalignment detection.

19. The apparatus according to any of claims 13-18, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for imbalance detection.

20. The apparatus according to claim 19, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for balancing.

21. The apparatus according to any of claims 13 -20, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for misalignment detection.

22. The apparatus according to claim 21, wherein

said plurality of condition monitoring functions (F1, F2,Fn) includes a function for alignment.

23. The apparatus according to any of claims 13-22, further comprising

means for causing a user interface to indicate when use is registered at said first rate.

24. The apparatus according to any of claims 13-23, further comprising

means for causing a user interface to indicate when use is registered at said second rate.

25. The apparatus according to any of claims 13-23, wherein

said logger is adapted to register use of at least two of said condition monitoring functions (F1, F2,Fn); and

wherein

said logger is adapted to register use of a first condition monitoring function a third rate; and

said logger is adapted to register use a second condition monitoring function at a fourth rate, said fourth rate deviating from said third rate.

26. The apparatus according to claim 25, wherein

said fourth rate is such that use registered at said fourth rate causes a higher cost per unit of usage than use registered at said third rate.

27. The apparatus according to claim 25, wherein

said fourth rate is such that use registered at said fourth rate causes a lower cost per unit of usage than use registered at said third rate.